217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT
"REVISED"

PERMITTEE

Deluxe Financial Services, Des Plaines
Attn: Chris Matheny
1600 East Touhy Avenue
Des Plaines, Illinois 60018

Application No.: 93020005 I.D. No.: 031063AFT
Applicant's Designation: PLANT#0251 Date Received: September 23, 2003
Subject: Tinters, Plate Setters, and Presses
Date Issued: October 7, 2003 Expiration Date: July 11, 2005
Location: 1600 East Touhy Avenue, Des Plaines

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of 15 non-heatset web offset lithographic presses, 22 sheetfed non-heatset lithographic presses, 3 flexographic printing presses, 9 paper tinting units, 6 paper plate-making units, UV lithographic web press, and 2 gas-fired boilers pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 25 tons/year for volatile organic material (VOM)). As a result the source is excluded from the requirement to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.

b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.

c. This permit supersedes all operating permits issued for this location.

2a. Emissions of volatile organic material, VOM, and operation of the 15 non-heatset web offset lithographic presses and UV lithographic web press shall not exceed the following limits:

Material	Usage (Per Mo)	Usage (Per Year)	VOM Emissions (Lb/Mo)	VOM Emissions (Ton/Yr)
Ink	3.6 Tons	36 Tons	120	0.6
Fountain Solution	360 Gals	3,600 Gals	300	1.5
Clean-Up Solvent (High VOM)	396 Gals	3,960 Gals	1,310	6.55
Clean-Up Solvent (Low VOM)	720 Gals	7,200 Gals	48	0.24
		Total:	1,778	8.89

These limits define the potential emissions of VOM and are based on maximum material usage, VOM content for each individual ink, fountain solution and solvent, 95 percent ink retention, and 50 percent retention of the clean up solvents in rags that are sent off site. Compliance with annual limits shall be determined from a running total of 12 months of data.

b. Emissions of volatile organic material, VOM, and operation of the 22 sheetfed non-heatset lithographic presses shall not exceed the following limits:

	Usage		VOM Emissions	
Material	(Per Mo)	(Per Year)	(Lb/Mo)	(Tons/Yr)
Ink	872 Lbs	8,720 Lbs	46.4	0.232
Fountain Solution	264 Gals	2,640 Gals	132.3	0.661
Clean-Up Solvent (Low VOM)	12 Gals	120 Gals	30.0	0.100
Clean-Up Solvent (High VOM)	67 Gals	670 Gals	395.4	2.201
Minus Waste Shipped Off-Site	(15 Gals)	(181 Gals)	(129.6)	(0.543)
		Total:	604.1	2.651

These limits define the potential emissions of VOM and are based on maximum material usage, VOM content for each individual ink, fountain solution and solvent, and material balance. Emission reduction credit is given to approximately 27% of the high VOM clean up solvent which remains as liquid hazardous waste (6 lbs VOM/gallon) and is shipped off site for disposal. Compliance with annual limits shall be determined from a running total of 12 months of data.

c. Emissions of volatile organic material, VOM, and operation of the 3 flexographic presses shall not exceed the following limits:

	Usage		VOM Emissions	
Material	(Per Mo)	(Per Year)	(Lb/Mo)	(Ton/Yr)
Ink	5.1 Tons	51 Tons	800	4.0
Clean Up-Solvent	90 Gals	900 Gals	100	0.5
		Total:	900	4.5

These limits define the potential emissions of VOM and are based on maximum material usage and VOM content for each individual ink and solvent. Compliance with annual limits shall be determined from a running total of 12 months of data.

d. Emissions of volatile organic material, VOM, and operation of the 9 paper tinting units shall not exceed the following limits:

	Usage		VOM Emissions	
Material	(Per Mo)	(Per Year)	(Lb/Mo)	(Ton/Yr)
Ink	4.34 tons	43.36 Tons	726	3.63
Clean-Up Solvent	33 Gals	330 Gals	200	0.11
		Total:	926	3.74

These limits define the potential emissions of VOM and are based on maximum material usage and VOM content for each individual ink and solvent. Compliance with annual limits shall be determined from a running total of 12 months of data.

e. Emissions of volatile organic material, VOM, and operation of the 6 paper plate-making units shall not exceed the following limits:

Material	Usage (Per Mo)	Usage (Per Year)	VOM Emissions (Lb/Mo)	VOM Emissions (Ton/Yr)
Toner	306 Gals	3,060 Gals	900	4.5

These limits define the potential emissions of VOM and are based on maximum material usage and maximum VOM content. Emission reduction credit is given to approximately 56% of the toner which remains as liquid hazardous waste (6 lbs VOM/gallon) and is shipped off site for disposal. Compliance with annual limits shall be determined from a running total of 12 months of data.

f. Emissions from and operation of the 2 gas fired boilers shall not exceed the following limits:

Material	Usage (mmscf/mo)	Usage (mmscf/yr)	Pollutant	Emission Factor (Lb/mmscf)	Emissions (Ton/Mo)	Emissions (Ton/Yr)
Natural Gas	12.5	149.9	NO_x	100	0.7	7.5
			CO	84	0.6	6.3
			TSP	1.9	0.1	0.6
			SO_2	0.6	0.1	0.1
			VOM	5.5	0.1	0.5

These limits define the actual emissions of NO_x, CO, TSP, SO_2, and VOM and are based on maximum material usage and standard emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

3. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

4a. This permit is issued based upon the flexographic presses not being subject to the requirements of 35 Ill. Adm. Code Section 218.401 pursuant to 218.402(a).

b. Pursuant to 35 Ill. Adm. Code Section 218.404 (b) owner or operator of a flexographic and rotogravure printing shall collect and record all of the following information each year for each printing line and maintain the information at the source for a period of three years:

i. The name and identification number of each coating and ink as applied on each printing line.

ii. The VOM content and the volume of each coating and ink as applied each year on each printing line.

iii. On and after a date consistent with Section 218.106 of this Part, the owner or operator of a flexographic printing line exempted from the limitations of Section 218.401 of this Part because of the criteria in Section 218.402 of this Part shall notify the Illinois EPA of any record showing that total maximum theoretical emissions of VOM from all printing lines exceed 90.7 mg (100 tons) in any calendar year before the application of capture systems and control devices by sending a copy of such record to the Illinois EPA within 30 days after the exceedance occurs.

5a. This permit is issued based on the combined emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) being less than 100 lbs/day as determined in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B). Therefore, the requirements of 35 Ill. Adm. Code 218.407 and 218.410 are not applicable to the lithographic printing lines at this source.

b. Pursuant to 35 Ill. Adm. Code 218.411(a)(1)(B) the Permittee shall perform calculations which demonstrate that combined emissions of VOM from all lithographic printing lines (including inks, varnish, fountain solutions, and solvents used for cleanup operations associated with the lithographic printing lines) at the source never exceed 100 lbs/day before the use of capture systems and control devices, as follows:

i. To calculate daily emissions of VOM, the Permittee shall determine the monthly emissions of VOM from all lithographic printing lines at the source (including solvents used for cleanup operations associated with the lithographic printing lines) and divide this amount by the number of days during that calendar month that printing lines at the source were in operation;

ii. To determine the VOM content of the inks, fountain solution additives and cleaning solvents, the test methods and procedures set forth in 35 Ill. Adm. Code 218.409(c) shall be used;

iii. To determine VOM emissions from inks used on lithographic printing lines at the source, an ink emission adjustment factor of 0.05 shall be used in calculating emissions from all non-heatset inks, and a factor of 0.80 shall be used in calculating emissions from all heatset inks to account for VOM retention in the substrate. The VOM content of the ink, as used, shall be

multiplied by this factor to determine the amount of VOM emissions from the use of ink on the printing lines; and

6a. Pursuant to 35 Ill. Adm. Code 218.411(a)(2) the Permittee shall collect and record either the information specified in (b) or (c) below for all lithographic printing lines at the source:

b. Standard recordkeeping, including the following:

i. The name and identification of each fountain solution additives, lithographic ink, varnish, and cleanup solvent used on any lithographic printing lines, recorded each month;

ii. A daily record which shows whether a lithographic printing line at the source was in operation on that day;

iii. The VOM content and the amount of each fountain solution additive, lithographic ink, varnish, and cleaning solvent used on any lithographic printing line, recorded each month (lb/month or gal/month);

iv. The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, varnish, and lithographic ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month; and

v. The VOM emissions in lbs/day for the month, calculated in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B) and Special Condition 3(b).

c. Purchase and inventory recordkeeping, including the following:

i. The name, identification, and VOM content of each fountain solution additive, lithographic ink, varnish, and cleaning solvent used on any lithographic printing line, recorded each month;

ii. Inventory records from the beginning and end of each month indicating the total volume of each fountain solution additive, lithographic ink, varnish, and cleaning solvent used on any lithographic printing line at the source;

iii. Monthly purchase records for each fountain solution additive, lithographic ink, varnish, and cleaning solvent used on any lithographic printing line at the source;

iv. A daily record which shows whether a lithographic printing line at the source was in operation on that day;

v. The total VOM emissions at the source each month, determined as the sum of the product of usage and VOM content for each fountain solution additive, cleaning solvent, varnish, and lithographic

ink (with the applicable ink VOM emission adjustment) used at the source, calculated each month based on the monthly inventory and purchase records required to be maintained pursuant to 35 Ill. Adm. Code 218.411(a)(2)(B)(i), (a)(2)(B)(ii), and (a)(2)(B)(iii) and Special Conditions 4(c)(i), (c)(ii), and (c)(iii); and

vi. The VOM emissions in lbs/day for the month, calculated in accordance with 35 Ill. Adm. Code 218.411(a)(1)(B).

d. The Permittee shall maintain all records required by 35 Ill. Adm. Code 218.411 at the source for a minimum period of three years and shall make all records available to the Illinois EPA upon request.

7. Pursuant to 35 Ill. Adm. Code 218.411(a)(3), the Permittee shall notify the Illinois EPA in writing if the combined emissions of VOM from all lithographic printing lines (including inks, fountain solutions, varnish, and solvents used for cleanup operations associated with the lithographic printing lines) at the source ever exceed 100 lbs/day, before the use of capture systems and control devices, within 30 days after the event occurs. Such notification shall include a copy of all records of such event.

8a. Within 90 days of a written request from the Illinois EPA the Permittee shall submit data on the volatile organic material content of the representative inks as applied determined by laboratory analysis in accordance with the 35 Ill. Adm. Code Section 218.105.

b. The submitted data shall include: the VOM content of the inks, a justification of why these are representative, and a description of the sampling procedures, and documentation for the analysis.

c. The Illinois EPA may provide additional time for the performance of this testing upon request from the Permittee which shows that it is not feasible to perform representative testing within 90 days.

9. The Permittee shall maintain monthly records of the following items:

a. Amount of each ink, fountain solution, and clean up solvent used in the non heatset web offset, sheetfed non heatset lithographic presses, and UV lithographic web press (lb or gal/mo and gal or ton/yr);

b. Amount of each ink and clean up solvent used in the flexographic presses and paper tinting units (lb or gal/mo and gal or ton/yr);

c. Amount of each toner used in the paper plate-making units (lb or gal/mo and gal or ton/yr);

d. VOM content of each ink, fountain solution, and clean up solvent used in the non heatset web offset, sheetfed non heatset lithographic presses, and UV lithographic web press (percent weight of VOM or lb VOM/gal);

e. VOM content of each ink and clean up solvent used in the flexographic presses and paper tinting units (percent weight of VOM or lb VOM/gal);

f. VOM content of each toner used in the paper plate-making units (percent weight of VOM or lb VOM/gal);

g. VOM emissions from all equipment (lb/mo and ton/yr); and

h. Natural gas usage for the two boilers (mmscf/mo and mmscf/yr).

10. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least three years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.

11. If there is an exceedance of the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or violation and efforts to reduce emissions and future occurrences.

12. Two (2) copies of required reports and notifications concerning equipment operation or repairs, performance testing or a continuous monitoring system shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

13. The Permittee shall submit the following additional information with the Annual Emissions Report, due May 1st of each year:

a. VOM content (percent by weight) of each ink, fountain solution, clean up solvent, and toner;

b. Each month's, monthly and annual material usages for the preceding calendar year (i.e., preceding 12 months);

c. Each month's, monthly and annual VOM emissions for the preceding calendar year (i.e., preceding 12 months); and

d. Dates that the plant exceeded the annual usage or VOM limitations, if applicable.

If there have been no exceedances during the prior calendar year, the Annual Emission Report shall include a statement to that effect.

It should be noted that this permit has been revised to incorporate Construction Permit #02010017 to include one UV lithographic web press with no increase in emissions.

Please note that there is no increase in material usage or emissions from the addition of 1 non-heatset sheetfed lithographic press from Construction Permit 03090056.

If you have any questions on this, please call Randy Solomon at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:RBS:psj

cc: Illinois EPA, FOS Region 1
Illinois EPA, Compliance Section
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emissions from the commercial printing facility operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from such a plant. The resulting maximum emissions are well below the levels, e.g., 25 tons/year for volatile organic material (VOM) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that less material is handled and control measures are more effective than required in this permit.

1a. Emissions of volatile organic material, VOM, and operation of the 15 non-heatset web offset lithographic presses and one UV lithographic web press shall not exceed the following limits:

Material	Usage (Per Mo)	Usage (Per Year)	VOM Emissions (Lb/Mo)	VOM Emissions (Ton/Yr)
Ink	3.6 Tons	36 Tons	120	0.6
Fountain Solution	360 Gals	3,600 Gals	300	1.5
Clean-Up Solvent (High VOM)	396 Gals	3,960 Gals	1,310	6.55
Clean-Up Solvent (Low VOM)	720 Gals	7,200 Gals	48	0.24
		Total:	1,778	8.89

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b. Emissions of volatile organic material, VOM, and operation of the 22 sheetfed non-heatset lithographic presses shall not exceed the following limits:

Material	Usage (Per Mo)	Usage (Per Year)	VOM Emissions (Lb/Mo)	VOM Emissions (Ton/Yr)
Ink	872 Lbs	8,720 Lbs	46.4	0.232

Fountain Solution	264 Gals	2,640 Gals	132.3	0.661
Clean-Up Solvent (Low VOM)	12 Gals	120 Gals	30.0	0.10
Clean-Up Solvent (High VOM)	67 Gals	670 Gals	395.4	2.201
Minus Waste Shipped Off-Site	(15 Gals)	(181 Gals)	(129.6)	(0.543)
		Total:	604.1	2.651

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c. Emissions of volatile organic material, VOM, and operation of the 3 flexographic presses shall not exceed the following limits:

Material	Usage (Per Mo)	Usage (Per Year)	VOM Emissions (Lb/Mo)	(Ton/Yr)
Ink	5.1 Tons	51 Tons	800	4.0
Clean-Up Solvent	90 Gals	900 Gals	100	0.5
		Total:	900	4.5

These limits define the potential emissions of VOM and are based on maximum material usage and VOM content for each individual ink and solvent. Compliance with annual limits shall be determined from a running total of 12 months of data.

d. Emissions of volatile organic material, VOM, and operation of the 9 paper tinting units shall not exceed the following limits:

Material	Usage (Per Mo)	Usage (Per Year)	VOM Emissions (Lb/Mo)	(Ton/Yr)
Ink	4.34 tons	43.36 Tons	726	3.63

Clean-Up Solvent	33 Gals	330 Gals	200	0.11
		Total:	926	3.74

These limits define the potential emissions of VOM and are based on maximum material usage and VOM content for each individual ink and solvent. Compliance with annual limits shall be determined from a running total of 12 months of data.

e. Emissions of volatile organic material, VOM, and operation of the 6 paper plate-making units shall not exceed the following limits:

	Usage		VOM Emissions	
Material	(Per Mo)	(Per Year)	(Lb/Mo)	(Ton/Yr)
Toner	306 Gals	3,060 Gals	900	4.5

These limits define the potential emissions of VOM and are based on maximum material usage and maximum VOM content. Emission reduction credit is given to approximately 56% of the toner which remains as liquid hazardous waste (6 lbs VOM/gallon) and is shipped off site for disposal. Compliance with annual limits shall be determined from a running total of 12 months of data.

f. Emissions from and operation of the 2 gas fired boilers shall not exceed the following limits:

Material	Usage (mmscf/mo)	Usage (mmscf/yr)	Pollutant	Emission Factor (Lb/mmscf)	Emissions (Ton/Mo)	Emissions (Ton/Yr)
Natural Gas	12.5	149.9	NO_x	100	0.7	7.5
			CO	84	0.6	6.3
			TSP	1.9	0.1	0.6
			SO_2	0.6	0.1	0.1
			VOM	5.5	0.1	0.5

These limits define the actual emissions of NO_x, CO, TSP, SO_2, and VOM and are based on maximum material usage and standard emission factors. Compliance with annual limits shall be determined from a running total of 12 months of data.

2. The emissions of Hazardous Air Pollutants (HAPs) as listed in Section 112(b) of the Clean Air Act shall not equal or exceed 10 tons per year of any single HAP or 25 tons per year of any combination of such HAPs, or such lesser quantity as USEPA may establish in rule which would require the Permittee to obtain a CAAPP permit from the Illinois EPA. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

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